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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/747,762 | | Joseph D. Lichtenhan | 38559-0257952 (6565-10) | 4698 |

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10/22/2002

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EXAMINER

ROBERTSON, JEFFREY

ART UNIT

PAPER NUMBER

1712

DATE MAILED: 10/22/2002

13

Please find below and/or attached an Office communication concerning this application or proceeding.

2A

| | | | |
|------------------------------|----------------------------------|-----------------------------------|--|
| Office Action Summary | Application No. 09/747,762 | Applicant(s) LICHTENHAN ET AL. | |
| | Examiner Jeffrey B. Robertson | Art Unit 1712 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input checked="" type="checkbox"/> Other: <i>notice of copied papers used</i> . |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 05/08/01 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

The reason that the IDS fails to comply is that a copy of those references not considered was not present in the application file.

Specification

2. Applicant should not have "figures" in the specification because such a label indicates a drawing. Applicants must submit the flow diagrams as drawings because they do not conform to Rule 37 CFR § 1.58 for those diagrams. The examiner has reproduced 37 CFR § 1.58(a) and MPEP § 608.01 for applicant's convenience.

37 CFR § 1.58 Chemical and mathematical formulae and tables.

(a) The specification, including the claims, may contain chemical and mathematical formulas, but shall not contain drawings or flow diagrams. The description portion of the specification may contain tables; claims may contain tables either if necessary to conform to 35 U.S.C. 112 or if otherwise found to be desirable.

MPEP § 608.01 (p. 600-59, August 2001)

Graphical illustrations, diagrammatic views, flowcharts, and diagrams in the descriptive portion of the specification do not come within the purview of 37 CFR 1.58(a), which permits tables, chemical and mathematical formulas in the specification in lieu of formal drawings. The examiner should object to such descriptive illustrations in the specification and request formal drawings in accordance with 37 CFR 1.81 when an application contains graphs in the specification. The specification, including any claims, may contain chemical formulas and mathematical equations, but may not contain drawings or flow diagrams.

On page 5, lines 23-24, page 6, lines 13-14, and 17-18, page 7, lines 3-4, and 11-12,

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applicant has figures present in the specification text. This is not allowed as set forth above. The figures within the specification are still present. Any chemical formulas set forth in the specification may not be referred to as a "figure". Appropriate correction is required.

3. The disclosure is objected to because of the following informalities: On page 5, line 14 and page 8, line 27, Karstedt is spelled incorrectly. In addition, applicant should reference the chemical identity of Karstedt and Spiers catalysts in the specification. Appropriate correction is required.

Drawings

4. The drawings are objected to because in Figure 2 and Figure 3, there are large spaces within the chemical formulas in the captions that accompany the drawings. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 22-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For claims 22, 25, and 26, the claim describes a method for curing a "first composition". The significance of the term "first composition" is not known since there is no second composition set forth in the claims.

In addition, for claim 25, the Markush group of lines 6-8 of the claim is not understood. First, the use of the word "or" in line 7 calls into question what actually makes up the group. Second, it is not clear if "(a) halides, (b) olefin complexes, or (c) carbon supported versions" is meant to apply to both palladium and platinum.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

8. Claims 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Watanabe et al. (U.S. Patent No. 4,657,965).

For claim 26, Watanabe et al. teaches in column 2, lines 42 through column 3,

line 5 that polysiloxane polymers containing strained ring olefins are made through a hydrosilation process in the presence of a platinum catalyst such as chloroplatinic acid.

In column 4, lines 59-65 Watanabe et al. teaches that a sulfur or peroxide-containing vulcanizer can be used in column 4, line 59 through column 5, line 9. For claims 27 and 28, in column 5, lines 10-20, Watanabe et al. teaches that the amount of vulcanizer can vary from 0.1-25 parts by weight.

9. Claim 25 is rejected under 35 U.S.C. 102(b) as being anticipated by Bard et al. (U.S. Patent No. 5,008,360).

For claim 25, Bard et al. teaches in column 2, lines 44-59, and column 3, lines 5-65, that a polyene, which is a strained ring olefin, is reacted with a siloxane in a hydrosilation reaction to produce telechelic polymers containing functional strained ring olefins. In column 7, lines 1-16, Bard teaches that the resulting polymer is subject to a final cure. Bard teaches that the polymers are prepared through hydrosilation techniques in column 7, lines 31-36. In column 8, lines 45-67, Bard et al. teaches that all the hydrosilation steps are carried out via a hydrosilation catalyst such as a platinum halide catalyst.

10. Claims 25 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Jacobine et al. (U.S. Patent No. 5,034,490).

For claims 25 and 26, Jacobine et al. teaches in column 7, lines 10-25, that strained ring olefin containing siloxanes are made through a hydrosilation process using Karstedt catalyst. For claim 25, in column 6, lines 34, Jacobine teaches that these compositions may be cured through hydrosilation using the catalysts described in column 56-62,

including chloroplatinic acid. For claim 26, in column 5, lines 55-65, Jacobine et al. teaches the use of organic peroxides as curing agents for the strained ring olefin siloxanes.

11. Claims 22-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Endo et al. (U.S. Patent No. 5,055,499).

For claims 22-24 in column 11, line 41 through column 12, line 60, Endo et al. teaches the hydrosilation of a strained ring olefin to a silane. This silane is combined with tungsten hexachloride and octylaluminum iodide to react in a metathesis polymerization. For claims 23 and 24, Endo teaches concentrations of 1 and 3 millimoles of the mixture, or a total of 4 millimoles.

12. Claims 22-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Tenney et al. (U.S. Patent No. 5,071,701).

For claim 22, Tenney et al. teaches strained ring olefin silanes in column 9, lines 44-55. In column 7, lines 22-41, Tenney teaches molybdenum and tungsten halides that contain an alkyl aluminum halide co-catalyst. For claims 23 and 24, in column 7, lines 42-52, Tenney teaches that the molybdenum or tungsten salt is present in preferably 0.5 to 10 millimoles, with the organoaluminum co-catalyst present in amounts that vary from 10:1 to about 1:3 of the metal salts. This results in concentrations that are within the range claimed by applicant.

13. Claim 22 is rejected under 35 U.S.C. 102(a) as being anticipated by Chevalier et al. (Journal of Inorganic and Organometallic Polymers, Vol. 9, No. 3, 1999, pp. 151-64).

For claim 22, on page 157, lines 38-41 Chevalier et al. teaches that a norbornene functional trialkoxysilanes are reacted with a $WCl_6/EtAlCl_2$ catalyst.

Response to Amendment

14. Applicant has amended claims 22, 25, and 26 to state that either silane, siloxane, silsesquioxane, POSS, silicate, or POS is reacted with the different catalysts of claims 22, 25, and 26. Previously the claims indicated that the second composition was reacted with the catalysts. That is, the silane, siloxane, silsesquioxane, POSS, silicate, or POS without the strained ring olefin attached was reacted. Applicant has changed the scope of the claims by the amendment.

Conclusion


15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey B. Robertson whose telephone number is (703) 306-5929. The examiner can normally be reached on Mon-Fri 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert A. Dawson can be reached on (703) 308-2340. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

JBR 
October 8, 2002



Robert Dawson
Supervisory Patent Examiner
Technology Center 1700

The following papers have not been made part of the permanent records of the United States Patent and Trademark Office (Office) for this application (37 CFR 1.52(a)) because of damage from the United States Postal Service irradiation process:

Mailroom Stamp Date

9/5/02

Certificate of Mailing Date

8/27/02

The above-identified papers, however, were not so damaged as to preclude the USPTO from making a legible copy of such papers. Therefore, the Office has made a copy of these papers, substituted them for the originals in the file, and stamped that copy:

COPY OF PAPERS
ORIGINALLY FILED

If applicant wants to review the accuracy of the Office's copy of such papers, applicant may either inspect the application (37 CFR 1.14(d)) or may request a copy of the Office's records of such papers (*i.e.*, a copy of the copy made by the Office) from the Office of Public Records for the fee specified in 37 CFR 1.19(b)(4). Please do **not** call the Technology Center's Customer Service Center to inquiry about the completeness or accuracy of Office's copy of the above-identified papers, as the Technology Center's Customer Service Center will **not** be able to provide this service.

If applicant does not consider the Office's copy of such papers to be accurate, applicant must provide a copy of the above-identified papers (except for any U.S. or foreign patent documents submitted with the above-identified papers) with a statement that such copy is a complete and accurate copy of the originally submitted documents. If applicant provides such a copy of the above-identified papers and statement within **THREE MONTHS** of the mail date of this Office action, the Office will add the original mailroom date and use the copy provided by applicant as the permanent Office record of the above-identified papers in place of the copy made by the Office. Otherwise, the Office's copy will be used as the permanent Office record of the above-identified papers (*i.e.*, the Office will use the copy of the above-identified papers made by the Office for examination and all other purposes). This three-month period is not extendable.